

Interventions to increase self-efficacy in the context of addiction behaviours: a systematic literature review

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CRD summary

This review investigated interventions aimed at increasing self efficacy and changing addiction behaviours. It concluded that there was good evidence that interventions increased self efficacy in people with addictions, but it was unclear whether that resulted in changes in behaviour. The reliability of the conclusions is unclear, due to shortcomings in the data and limitations in the review process.

Authors' objectives

To determine the effectiveness of interventions aimed at increasing self efficacy and changing addiction behaviours.

Searching

PsycINFO, MEDLINE, EMBASE and ERIC were searched from inception until either 2004 or 2005 for relevant published primary studies; search terms were reported. The search was limited to humans and English-language publications. The reference lists of retrieved studies were also searched.

Study selection

Eligible studies were published primary studies without restriction of study design. Studies were required to measure self efficacy pre and post intervention. The intervention had to target self efficacy in the context of behaviour change. Self efficacy and behaviour change were not defined. Specific inclusion criteria for participants were not reported.

Studies were conducted in the USA, Canada, the Netherlands and Taiwan. The setting included schools, hospitals, community settings and treatment centres. Participants were either from the general population or from specific groups such as inpatients from a treatment program, high school students or cardiac patients. Addiction behaviours targeted were tobacco smoking, alcohol, anabolic steroids, substance abuse and drug dependency. All of the studies measured self efficacy. More than half the studies also measured behaviour change. The interventions used verbal persuasion and activities to increase self efficacy. Interventions ranged from group activities to computer-generated letters providing persuasive information on self help.

One reviewer screened abstracts for inclusion. A second reviewer assessed a subset of 30 abstracts. The authors stated neither how full text studies were selected for inclusion nor how disagreements were resolved relating to final selection.

Assessment of study quality

Randomised controlled trials (RCTs) were assessed for quality using a checklist (National Health Service Centre for Reviews and Dissemination, 2001). Each study was given an overall score that reflected the total number from seven criteria met by the study: randomisation method; treatment allocation; baseline characteristics; eligibility criteria; assessor blinding; point estimates and variability measure; and intention to treat analysis. Non-randomised studies were assessed using a modified version of the RCT checklist.

Two reviewers independently performed the validity assessment. Disagreement was resolved by consensus with a third reviewer.

Data extraction

Data were extracted as effect sizes, but the authors stated neither the process used nor how many reviewers performed the data extraction. Authors of most studies were contacted to clarify missing or unclear data.

Methods of synthesis

Studies were summarised in the text and in tables. Study differences were determined from examination of the summary data in the tables.

Results of the review

Ten studies (n=8,447) were included. Sample sizes ranging from 76 to 3,228. Six studies were RCTs, three studies were quasi-randomised and one study was a before-after study. Most of the studies had numerous methodological flaws, particularly lack of reporting of quality criteria. Only one study reported sufficient data to judge whether randomisation, concealment of treatment allocation and blinding of outcome assessors was adequate. No studies used intention to treat analysis. Only one of the six studies that assessed behaviour change used biochemical validation in addition to self report measures.

Seven of the 10 studies reported positive effects of interventions upon self efficacy. Effect sizes were calculated for only three studies and ranged from 0 to 2.0. Six studies (five RCTs) assessed behaviour change following the intervention. Two RCTs reported significant beneficial effects. Analyses in these two studies were not performed to assess whether changes in self efficacy mediated changes in behaviour. The two studies that reported significant beneficial effects of the intervention on behaviour had larger sample sizes than those that failed to find significant associations. Studies were similar in all other aspects.

Authors' conclusions

Interventions incorporating a range of methods using verbal persuasion and experiential activities were effective at increasing self efficacy in people with addiction behaviour. It was not clear whether changes in self efficacy led to behaviour change.

CRD commentary

The review addressed a clear research question with broad inclusion criteria for participants, interventions and outcomes. A range of relevant sources were searched, but the review was limited to published English-language studies, so publication and language biases cannot be ruled out and the risk of overestimation of treatment effects cannot be excluded. Methods were used to minimise reviewer error and bias in the selection of studies and validity assessment, but no details were provided regarding the process of data extraction. Most of the included studies had substantial methodological flaws, mainly from a lack of reporting. Most studies did not provide details of point estimates and variability estimates, so meta-analysis was not feasible. Studies were synthesized in narrative format. Comprehensive tables provided details on the characteristics and results of individual studies, their quality and the reasons for exclusion of studies. The lack of quantifiable data on treatment effects for self efficacy did not justify the authors' definitive conclusions about effects on self efficacy, but the conclusions about behaviour change appeared appropriate and reflected the evidence presented. Due to limitations in the review process and shortcomings in the included studies, the reliability of the conclusions is unclear.

Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors suggested that future studies should be designed with sufficient power to assess the impact of interventions on behaviour and self efficacy, and the extent to which self efficacy mediated any impact on behaviour. They also suggested that other areas of health-related behaviour change should be investigated.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.